

3 U.S. Economists Win Nobel

Professors' Theories Explaining Markets Are Widely Applied

By STEVEN PROKESCH

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STOCKHOLM, Oct. 16 — The Nobel Memorial Prize in Economic Science was awarded today to three Americans whose pioneering work provided new tools for weighing the risks and rewards of different investments and for valuing corporate stocks and bonds.

The three are Harry M. Markowitz of Baruch College of the City University of New York, William F. Sharpe of Stanford University and Merton H. Miller of the University of Chicago.

Their work is known individually as Portfolio Theory, the Capital Asset Pricing Model and the Miller-Modigliani Theorem. Collectively, their theories are widely applied today. They influence the investment decisions of stockbrokers, bankers, mutual fund managers, government agencies and millions of individuals.

Theories Now Taken for Granted

These theories, although taken for granted today, were considered innovative when they were developed in the 1950's and 60's. For investors, the research offered a way to tailor one's holdings to mirror one's willingness to take risks. For financial specialists and economists, the theories explained how the weighing of risks and rewards helps to determine securities prices and how factors like tax changes and bankruptcy affect those values.

Corporate finance experts use the theories to value potential acquisitions and to make decisions about dividends and financings. Governments use them to assess the potential impact of a tax change on different parts of the economy. And a public utility commission might use them to determine the prices that would give an electric company enough return on its investments so that it could build needed power plants.

'They Are All Pioneers'

James Tobin, the Yale University professor who won the economics prize in 1981 and is now retired, said that in many ways the school of thought that believes financial markets are rational or efficient — that is, that the value of a company is always accurately reflected in the price of its stock — rests on the three men's work.

"They are all pioneers in finance theory, which has been flourishing in recent years," he said in a telephone interview from New Haven. "But these guys were way ahead of the fashion."

Assar Lindbeck, chairman of the prize committee at the Royal Swedish Academy of Sciences, noted that while the three did not collaborate, their work was a continuum.

"Each one of them gave one building block for a unified theory of financial economics," he said. "This



Reuters

Harry M. Markowitz clasped hands with his wife, Barbara, in Tokyo yesterday after being told that he was one of three American winners of the Nobel Memorial Prize in Economic Science.

Continued on Page D6

Nobel Prize to 3 U.S. Economists

Continued From First Business Page

theory would have been incomplete if one of these pieces were missing."

In a telephone interview from Cambridge, Mass., Franco Modigliani, a professor at the Massachusetts Institute of Technology, called the prize "the final seal of approval" for recognizing "for the first time that finance is a major area of economics." Dr. Modigliani won the economics prize in 1985, partly for his theories about savings and partly for work on corporate finance theory, which he did with Dr. Miller in the 1950's and 60's.

He added, "These three pieces of research work in a span of about 10 years changed finance from a field of purely institutional interest, where there was no theory or basic models to explain what was going on, into a flourishing area of economics that has given us a completely different understanding of what finance is all about."

As with most of the other Nobel Prizes, the award for economics is given for work that has often been completed decades ago but has stood the test of time. Sometimes theories or projects that at first seemed arcane wind up gaining wide application, often with modern technology like computers as a catalyst.

The three will equally share the prize, which this year totals four million Swedish crowns, or about \$710,000, paid by the Swedish central bank.

The economics prize was established in 1968 by the bank and first awarded the next year as a memorial to Alfred Nobel, the Swedish industrialist who invented dynamite. It is distinct from the Nobel Prizes in physics, chemistry, medicine, literature and peace, which were set up under the terms of Mr. Nobel's will and are financed from his legacy.

'Growing Branch' of Economics

In seeking out the three professors, said Lawrence Klein, a professor at the University of Pennsylvania who won the economics prize in 1980, "the prize committee wanted to broaden the concept of economics, and these people represent a new, growing branch of the field."

Dr. Markowitz, the Marvin Speiser Distinguished Professor of Finance and Economics at Baruch, developed the portfolio theory, which analyzes how wealth or savings can be optimally invested in assets that differ in terms of expected return and risk.

While investment managers and academic economists had long recognized the need to weigh potential returns against risks, Dr. Markowitz provided a formula to do so.

Dr. Sharpe, the Timken Professor of Finance at the Stanford Business School, used Dr. Markowitz's theory to develop a model for explaining how securities prices are established in the market to reflect risks and potential returns. His theory — the Capital Asset Pricing Model — is now widely

used by investment firms to predict, for instance, how a stock will perform in relation to the overall market.

The committee noted that several other researchers independently contributed to this area in the mid-1960's, although it called Dr. Sharpe "the leading figure."

Dr. Miller, currently the Robert R. McCormick Distinguished Service Professor at the University of Chicago's Graduate School of Business, is widely considered to still be the dominant force in theoretical and empirical analysis in corporate finance.

He was awarded the economics prize for his theory explaining the relation between manufacturing companies' capital asset structure and dividend policy on the one hand, and their market value and cost of capital on the other.

Before the Modigliani-Miller theorem, many economists and corporate executives believed that if a company raised money by selling stock rather than borrowing, its value — based on the price of its securities — would rise because it would appeal to investors who thought the company was less risky than others with large debts.

But the theorem states that corporate executives should instead leave it to investors to reduce their risks by diversifying their portfolios. Corporate managers can best safeguard the interests of stockholders by maximizing their companies' net wealth.